

VEN-TROL™ 401: The Versatile Shale Control Additive

Some gilsonite or asphalt derivatives, hydrocarbon resins and other types of non-aqueous based products are effective in preventing filtrate invasion in microfractured shales. They also tend to stabilize shale, especially brittle shale.

VEN-TROL™ 401 brings an added dimension to regular shale control additives. It incorporates an oil dispersible resin on a micronized fiber. The fibrous base provides a significant decrease in seepage loss, thereby improving the shale stabilizing ability of the oil dispersible resin.

VEN-TROL™ 401 has the ability to control seepage losses in low pressure unconsolidated sands and in fractured limestone/dolomite formations. It is particularly effective in helping to prevent fluid wetting of microfractured shale sections.

Venture Chemicals, Inc. has prepared a seminar on the use of VEN-TROL™ 401. This 71 slide seminar is available as a paper copy or as a Microsoft PowerPoint presentation on 3.5 inch disks. Call us for your copy.

VEN-TROL™ 401 is based on a micronized cellulose fiber that has been extensively surface modified with a hydro-carbon resin. Additional processing results in a product that is readily dispersible in most water based mud systems.

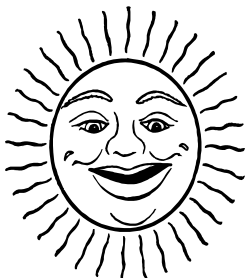
VEN-TROL™ 401 also has the added advantage of being a complete, ready-to-use product that does not need additional

“activators” or other wetting agents commonly needed for certain gilsonite or asphalt based products used in water based muds.

If you are currently using asphaltic products for shale control, lubricity or seepage loss, why not investigate the unique properties of **VEN-TROL™ 401** ?

Contact us: **Tel:** (337) 232-1977 or 1-800-523-1933
Fax: (337) 237-5340 **Email:** www.vgweb.com

DID YOU KNOW??



- the sun provides the earth with 126,000,000,000,000 horsepower of energy each day - 54,000 horsepower for every man, woman and child every 24 hours...
- because of the high speed at which the earth moves, a solar eclipse will never last more than 7 minutes and 58 seconds...
- a person weighing 150 pounds on earth would weigh 2 tons on the sun because of the sun's gravity...
- as the sun shines, it loses mass at a rate of about 4 million tons per second, but the volume of the sun is so enormous that it is not expected to expand into a red giant for at least another 8 billion years...

The Origin of Labor Day

Although Labor Day has already come and gone, many may not know how that much anticipated day off came to be.

In the 19th century, farmers had been lured *en masse* to the cities with the hopes of a better life and a steady, year round income in the newly industrialized America. They were jolted from their dream as the harsh realities of 12-14 hour days in dingy, often dangerous, mines and factories became apparent.

In the spring of 1872, Peter McGuire, who began work at age 11 to support his family, joined 100,000 fellow workers to march the streets of New York in demand of better working conditions. They promoted the idea of a holiday, mid-way between Independence Day and Thanksgiving to honor the worker.

Ten years later, the first Labor Day parade was held in New York City with 20,000 workers parading up Broadway. The idea quickly caught on from coast to coast.

In 1894, President Cleveland faced re-election and a constituency that vehemently opposed his heavy-handed handling of the strike at the Pullman Company in Chicago the previous year. President Cleveland deployed 12,000 federal troops and 2 men were killed by U.S. marshals. As appeasement, he pushed the bill that honored labor with a national holiday. Congress passed the bill, but Cleveland lost the election.

GLOBAL DRILLING PRODUCTS AND SERVICES CA

Global Drilling Products and Services CA has been a long time distributor for Venture Chemicals, Inc. in Venezuela.

Owned by Alfonso Giovannucci, Global Drilling provides local warehousing and distribution of the Venture Chemicals, Inc. product line for the oil and gas industry. Assisting Alfonso is Angel Contreras who aids in technical presentation.

The warehouse is located in the heart of the Western Venezuela oil industry. For more information about Global Drilling Products and Services CA, contact Alfonso or Angel at:

**TEL: 5865-322370 or
FAX: 5865-410967**

THOUGHT TICKLERS



“The creator of the universe works in mysterious ways. But he uses a base ten counting system and likes round numbers.”

- Scott Adams

“Coward - one who in perilous emergency thinks with his legs.”

- Ambrose Bierce (The Devil’s Dictionary)

“Results! Why, man, I have gotten a lot of results. I know several thousand things that won’t work.”

- Thomas Edison

“The statistics on sanity are that 1 out of every 4 Americans is suffering from mental illness. Think of your 3 best friends. If they’re ok, then it’s you.”

- Rita Mae Brown

“If you tell the truth, have one foot in the stirrup.”

- Turkish proverb

“A woman who has never seen her husband fishing doesn’t know what a patient man she has married.”

- Ed Howe

IN EUROPE AND THE MIDDLE EAST PLEASE CONTACT OUR DISTRIBUTOR:

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VENTURE CHEMICALS, INC. is: a basic manufacturer of specialty chemical products used in the petroleum and chemical industries. Marketing is specifically oriented toward the drilling and production industry and to select market segments of the chemical industry. VENEWS is published by Venture Chemicals, Inc., P. O. Box 53631, Lafayette, LA 70505, as a service to users of VCI products and services. All correspondence should be addressed to Shana Nicholson, Editor, VENEWS, at the above address.

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VEN-TROL™ 401 PRODUCT INFORMATION

ALL YOU EVER WANTED TO KNOW ABOUT SHALE, BUT WERE TOO AFRAID TO ASK

- Typical geological section in Gulf of Mexico is made up of 75% shale.
- A shale's composition and reactivity to water based drilling fluids can be related by means of cation exchange capacity (CEC).
- Balling and hole cleaning problems are a function of shale reactivity.
- CEC can be used as a tool for matching PDC bit design and hydraulic requirements to formation composition.
- Shale is a fine grained sedimentary rock made up of silt and clay sized particles (0.0025 in.).
- Four basic types of clays found in Gulf of Mexico shales are: montmorillonite, illinite, chlorite and kaolinite.
- Clay surfaces are usually negatively charged.
- CEC values provide water reactivity information—the higher values, the more reactive to water.
- CEC values and water reactivity decrease as montmorillonite is altered to illite with depth.
- In areas of high geothermal gradients, CEC decreases at more shallow depths.
- Excess water is released during clay diagenesis of montmorillonite to illinite; incompressible trapped water in shale is believed to cause abnormal pressures.
- Major problem in using PDC bits is balling; major problems occur in high CEC shale sections.
- Experience shows that when CEC values decrease, ROP increases.
- Oil based muds inhibit balling by coating surfaces of cuttings with nonaqueous coatings, preventing hydration of clays and dehydrating shales.

TABLE 1

Sealing Characteristics of Various Shale Control Additives

- Test conditions:** 1) Base mud -10 lb/bbl bentonite in fresh water
 2) Additive concentrate - 10 lb/bbl
 3) Stir at HS on Waring blender
 4) Test at 100 psi across a 200 g 16/30 unconsolidated sand pack.
 Measure volume in ml to shut off (drops only).

	<u>Shut off, ml</u>	<u>Time, sec.</u>
Sample: A: Base mud (BM)	blow out	0
B: BM + 10 lb/bbl sulfonated asphalt	blow out	0
C: BM + 10 lb/bbl water dispersible gilsonite	blow out	0
D: BM + 10 lb/bbl VEN-TROL™ 401	52	6
E: Repeat sample D	49	6

TABLE 2

Shale Dispersion Measured by CST Instrument (1% Montmorillonite Clay)

<u>Shale Control Additive, % by weight</u>	<u>VEN-TROL™ 401, CST, sec</u>	<u>Sulfonated Asphalt, CST, sec.</u>
	<u>flocculation</u>	<u>dispersion</u>
0	425	425
1	500	854
2	29.6	889
3	11.4	1008

Use of VEN-TROL™ 401 in Oil Muds

VEN-TROL™ 401 is primarily designed as a shale control additive in water based muds. However, because it is a gilsonite based product, it can be used under certain conditions as a fluid loss additive or seepage loss additive in oil or synthetic oil based mud systems.

As a fluid loss additive in oil based mud systems, VEN-TROL™ 401 is recommended as a continuous treatment at concentrations of 4-10 lb/bbl depending on the particular system and the performance requirements.

VEN-TROL™ 401 can also be used as a slug treatment in oil based muds where seepage loss is a problem. Concentrations of 10-30 lb/bbl are recommended for slug treatments.

VEN-TROL™ 401 can also be used as a supplemental sealing additive to larger particle, conventional LCM pills.

Oil mud and synthetic mud systems can be sensitive to the addition of various products. It is recommended that VEN-TROL™ 401 be pilot tested in a particular mud system prior to its use.

<u>Sample</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Electric Stability 85°F, volts	1060	1000	900	1080	1060	960
Rheology 88°F, 600 rpm	103	105	124	93	102	155
300 rpm	55	58	69	51	57	87
10 second/ 10 minute gel	5 / --	6 / --	5 / --	3 / 8	6 / 10	5 / 13
Plastic Viscosity	48	47	55	42	45	68
Yield Point	7	11	14	9	12	19
HTHP filtrate @ 300°F				24.0	18.0	3.0
Free H ₂ O				2.0	1.0	0

Mud used: invert diesel oil emulsion mud, 80:20, 12 ppg

<u>Sample</u>	<u>Description</u>
1	Blank mud, stirred 15 minutes
2	Blank mud with 6 lb/ bbl VEN-TROL™ 401, stirred 15 minutes
3	Blank mud with 20 lb/ bbl VEN-TROL™ 401, stirred 15 minutes
4	Blank mud after hot rolling @ 150°F for 16 hrs., stirred 10 minutes (90°F)
5	Sample 2 after hot rolling @ 150°F for 16 hrs., stirred 10 minutes (89°F)
6	Sample 3 hot rolling @ 150°F for 16 hrs., stirred 10 minutes (90°F)

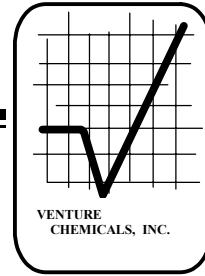
VEN-BRIEFS

- Scientists and engineers in the US have unlocked the secrets of a dog's extraordinary sense of smell...the discovery has been used to create a mechanical replacement that will be used to detect landmines... the "nose" removes most odor molecules from inhaled air and allows it to compare inhaled and exhaled air in such a way that it can detect a particular smell...the artificial nose has already detected mines under test conditions, but needs improvement as it is still 10-50 times less sensitive than its canine counterpart...

- *New Scientist*, September 2000

- Researchers in Japan say chocolate could one day help *prevent* cavities...they've found that parts of the cocoa bean thwart mouth bacteria and stop dental decay... scientists believe that antibacterial agents in cocoa beans offset its high sugar levels and that the husk of the bean (CBH) - usually a waste product in chocolate production - is an even more potent source of these agents... under test conditions, rats were fed a high sugar diet and rats that had CBH added to their diet had half the cavities of their counterparts... scientists speculate that CBH could be added to mouthwash or toothpaste or perhaps could even be added back into the chocolate during production... dentists warn that people should not fool themselves into thinking that chocolate will ever be a substitute for good, old-fashioned brushing...

- *New Scientist*, September 2000



What can VEN-TROL™ 401 do for you?

- Reduce problems associated with water sensitive shales.
- Reduce seepage losses and improve lubricity in high angle-low depleted sands.
- Reduce balling of bits, stabilizers and collars in gumbo shales.
- Reduce formation of mud rings.
- Assists in freeing stuck drill pipe when added to oil or water as a spotting fluid base.
- Minimizes differential sticking
- Reduces torque and drag.
- Provides some lubricity.

If you are currently using asphalt or gilsonite based products for lubricity, shale control or seepage loss, why not investigate the unique properties of **VEN-TROL™ 401**?

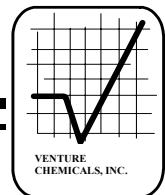
Call us or send in the reply card in this issue for more information.

NEXT MONTH...

In October, we'll be focusing on **LAPSCO, LLC**, a subsidiary of **The Venture Group** and our Master Distributor for Latin America.

D.J. Fournerat and Angel Contreras head the operation. Contact D.J. at: **DJLAPSCO@aphrons**.

FOR MORE INFORMATION



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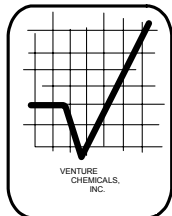
- viscosifiers
- biocides
- fluid loss additives
- shale control additives
- lost circulation products
- emulsifiers
- oil based products
- wetting agents
- flocculants
- dispersants
- lubricants
- spotting fluids/additives



GET HOOKED!

ASK ABOUT
VEN-TROL™ 401
TODAY!

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